

CARANO has published the results of the investigation of the development of the embryo in Asteraceae,<sup>26</sup> *Senecio vulgaris*,<sup>27</sup> and *Poinsettia pulcherrima*.<sup>28</sup>—J. M. C.

**Water absorption by epiphytes.**—LIESKE,<sup>29</sup> studying certain epiphytes (*Epidendrum* and *Tillandsia*) in their natural habitats about Rio de Janeiro, concludes that the velamen of the former and the scales of the latter do not condense physiologically significant amounts of water from the air. The water needs are supplied by rain, dew, and mist. The scales of *Tillandsia* seem important in trapping salts as dust from the air, which are later dissolved and absorbed.—WILLIAM CROCKER.

**Toxicity of lithium salts.**—FERKING<sup>30</sup> obtains some interesting results upon the toxicity of lithium salts. He finds that lithium salts, like magnesium salts, are highly toxic only to calcium-requiring plants and not injurious to the lower algae (*Chlorella* and *Scenedesmus*) and fungi (*Penicillium glaucum*) that do not require calcium. While calcium salts can fully antagonize the injurious effects of magnesium salts, they only reduce the toxicity of lithium salts.—WILLIAM CROCKER.

**Morphology of Pittosporum.**—BREMER<sup>31</sup> has investigated the ovule and embryo sac of two species of *Pittosporum*, and reports that in both cases the nucellus degenerates and has disappeared when the embryo sac is mature. In *P. ramiflorum* the third megaspore of the linear tetrad develops the embryo sac; and in *P. timorense* the tetrad is bilateral instead of linear.—J. M. C.

<sup>26</sup> SOUÈGES, Ricerche sull'embriogenesi delle Asteracee. Annali di Botanica 13: 251-301. pls. II-16. 1915.

<sup>27</sup> CARANO, E., Sull'embriologia di *Senecio vulgaris* L. Rend. Roy. Accad. Lincei 24:1244-1248. figs. 10. 1915.

<sup>28</sup> ———, Sull'embriologia di *Poinsettia pulcherrima* R. Grah. Annali di Botanica 13:343-350. pl. 17. 1915.

<sup>29</sup> LIESKE, R., Beiträge zur Kenntnis der Ernährungsphysiologie extrem atmosphärischer Epiphyten. Jahrb. Wiss. Bot. 56:112-122. 1915. PFEFFER's Festschrift.

<sup>30</sup> FERKING, H., Über die Giftwirkung Lithiumsalze auf Pflanzen. Flora 108: 449-453. 1915.

<sup>31</sup> BREMER, G., Reliquiae Treubianae II. The development of the ovule and embryo sac of *Pittosporum ramiflorum* Zoll. and *Pittosporum timerense* Blume. Ann. Jard. Bot. Buitenzorg II. 14:161-164. pls. 23-26. 1915.